



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,037	08/28/2003	Joseph F. Scheuring III	007570-0305723	6950
909	7590	08/02/2004	EXAMINER	
PILLSBURY WINTHROP, LLP			SCHWARTZ, CHRISTOPHER P	
P.O. BOX 10500			ART UNIT	
MCLEAN, VA 22102			PAPER NUMBER	

3683

DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/650,037

Applicant(s)

SCHEURING ET AL.

Examiner

Christopher P. Schwartz

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

CHRISTOPHER P. SCHWARTZ
PRIMARY EXAMINER

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement has been received and considered.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "control assembly being connected between the motor and the sensor of the sensing device", as claimed in claims 32-36 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of

Art Unit: 3683

any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 21,34 rejected under 35 U.S.C. 102(e) as being anticipated by Pfeil et al. '506.

Regarding claims 21,34 as broadly claimed, Pfeil et al. '506 suggests the claimed subject matter. Note the relatively movable elements, or attachment structures at 18,36,38,42 and the spring washer at 32. The sensor at 30 may be a potentiometer (col. 2 line 53) whose output will vary with the amount of displacement between the attachment structures.

5. Claims 31,34 rejected under 35 U.S.C. 102(e) as being anticipated by Flynn et al..

Flynn et al. teaches the claimed invention as can be clearly seen in the several embodiments in figures 8-11. Note the switches at 90,191.

6. Claims 31,34 rejected under 35 U.S.C. 102(b) as being anticipated by Reyes.

Art Unit: 3683

Regarding claim 31 note the switches at 50 and 70 in figure 8 and elements 57, 128 and 129.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-20, 31-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zipp in view of Flynn et al or Reyes.

Regarding claims 1, 9, 14, 20 Zipp discloses a parking brake system for controlling the amount of tension on a brake cable by way of an actuator unit 12 controlled by a control device 18. Note that the control device may control the tension based upon input variables fed thereto. As discussed in column 2 note also the deflection of a spring, integrated into the control cable assembly, may be used to adjust and/or control

Art Unit: 3683

the tension in the cable. Although Zipp uses a displacement sensor (see the discussion at the bottom of col 2), to adjust the brake cable in the applying and releasing directions, at the top of column 3 he alludes to the fact that limit switches are known in the art for this purpose.

Flynn et al. teaches such an idea in the several embodiments (see for example elements 90,191) and Reyes suggests a similar arrangement at 50 and 70 in figure 8. Note the actuator at 129. Note also the arrangement of the springs in these references and the first and second "attachment structures" as per applicants.

One having ordinary skill in the art at the time of the invention would have found it obvious to have modified the device of Zipp with first and second limit switches, as claimed, to determine when to apply and release tension in the brake cable via the actuator unit 12 (i.e. reversible electric motor), as such a modification would simply amount to an alternate equivalent method to that of Zipp.

Regarding claims 2-8,10-13,15-19 these limitations are fairly suggested by the combined teachings in the references above. It is known to use rods in place of cables in parking brakes (the examiner takes official notice here), and to substitute one type of spring for another. Note that Flynn et al suggests this in column 10 lines 40-45.

Regarding claims 32-36 simply to have connected the control assembly 18 of Zipp, as modified above, "between" the motor and the sensor would have been obvious to the ordinary skilled worker in the art dependent upon the particular vehicle the device is to be utilized with for most efficient use of space and/or optimum functionality of the device.

Art Unit: 3683

10. Claims 22-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pfeil et al. '506 in view of Matsuo et al., Nakamoto et al., or Zipp.

Regarding claim 22 Pfeil et al. '506 lacks adjusting the voltage signal in accordance with signals received from one or more vehicles sensors.

The references to Matsuo et al, Nakamoto et al. or Zipp teach it is known to control the operation of the parking brake in accordance with "one or more sensors". Please see the drawings of each of these references. In Zipp please see the discussion in column 3, especially lines 35-65.

One having ordinary skill in the art at the time of the invention would have found it obvious to have adjusted the maximum and minimum voltage signals from the potentiometer in Pfeil et al. "in accordance with signals" received from one or more vehicle sensors, as broadly claimed, as taught by either Matsuo et al., Nakamoto et al., or Zipp, simply to make actuation and release of the parking brakes more responsive to vehicle conditions, as warranted and avoid over or under adjustment of the brakes/cables.

Regarding claims 23-30, as discussed previously, these requirements are met.

11. Claims 21-30 rejected under 35 U.S.C. 103(a) as being unpatentable over Zipp in view of Pfeil et al. '506.

The explanation above is largely relied upon for a rejection of these claims with these references. It would have been obvious to the ordinary skilled worker in the art at the time of the invention to have substituted the parking brake actuator assembly for the assembly of Zipp since both teach similar arrangements and such a substitution would

Art Unit: 3683

merely amount to the substitution of one assembly for another. See the discussion of Zipp in col 3 lines 35-65 and note the similarities with Pfeil et al.

12. Claims 32,33,35,36 rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn et al. or Pfeil et al. '506.

Regarding claims 32,33,35,36 simply to have connected the control assemblies either Flynn et al. or Pfeil et al., "between" the motor and the sensor, as broadly claimed, would have been obvious to the ordinary skilled worker in the art dependent upon the particular vehicle either of the devices is to be utilized with for most efficient use of space and/or optimum functionality of the device.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references cited have been cited for showing other types of cable tensioning devices.

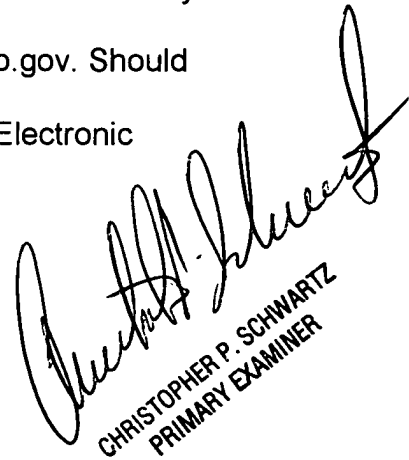
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Schwartz whose telephone number is 703-308-0576. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack W. Lavinder can be reached on 703-308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3683

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cps
7/28/04



CHRISTOPHER P. SCHWARTZ
PRIMARY EXAMINER